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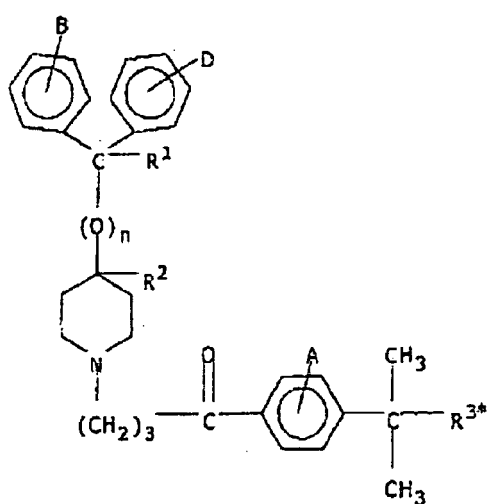
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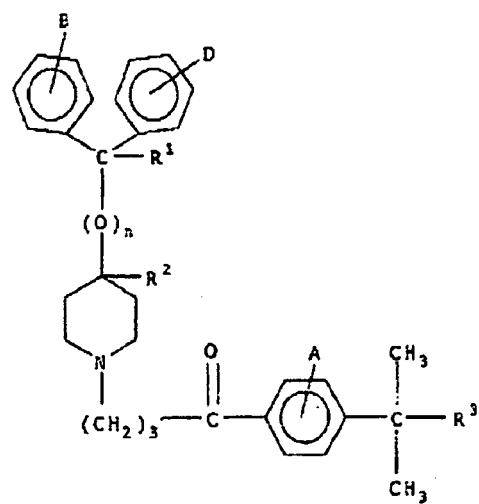
(54) **Process for the production of piperidine derivatives with microorganisms**

(57) The production of a product compound having a structure according to Formulae IA and/or IB wherein n, R¹, R², A, B, and D are defined as herein;
R³ is -COOH or -COOR⁴; R⁴ is an alkyl or aryl moiety; This process involves incubating a starting compound having a structure according to Formulae IIA and/or IIB wherein R³ is -CH₃ and R¹, R², A, B, and D are defined above, in the presence of a microorganism. The microorganism can be from the genus *Bacillus*, *Pseudomonas*, *Gliocladium*, *Botrytis*, *Cyathus*, *Rhizopus*, *Pycnidiosphora*, *Helicostylum*, *Aspergillus*, *Mucor*, *Gelasinospora*, *Rhodotorula*, *Candida*, *Mycobacterium* or *Penicillium*, or it can be *Cunninghamella bainieri*, *Absidia spinosa* var. *biappendiculata*, *Ascoidia*, *Enteroascus faecium*, *Fusidium coccineum*, *Hansends cadaver yeast*, *Lentinus lepidius*, *Lophotrichus martinii*, *Polyporus anceps*, *Spicaria violacea*, *Streptomyces catenulae*, *Streptomyces cavourensis*, *Streptomyces griseus*, *Streptomyces rimosus* or *Trichophyton gallinae*.

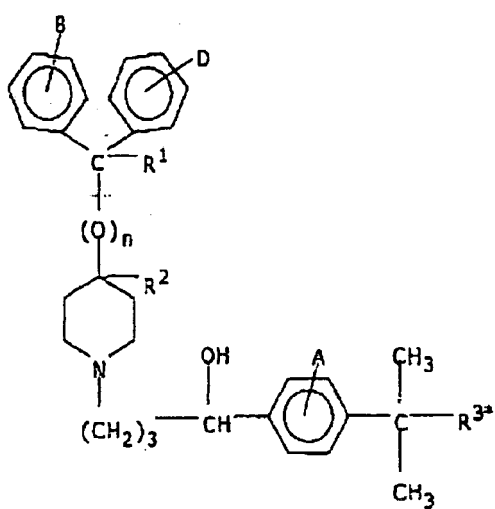
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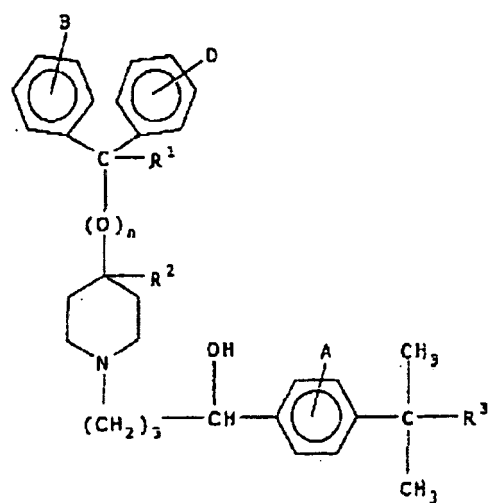
(IIA)



(IA)



(IIB)



(IB)



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 08 00 5953

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
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Y	WO 99/47693 A (HOECHST MARION ROUSSEL INC [FR]; AZERAD ROBERT [FR]; BITON JACQUES [FR] 23 September 1999 (1999-09-23) * claims 1-5 *	1-12	
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			TECHNICAL FIELDS SEARCHED (IPC)
			C07D
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 4 July 2008	Examiner Schuemacher, Anne
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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**CLAIMS INCURRING FEES**

The present European patent application comprised at the time of filing claims for which payment was due.

- ☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):
- ☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

- ☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- ☒ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
- ☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
- ☐ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:
- ☐ The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 08 00 5953

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

04-07-2008

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